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Indrojit Deb

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EXAMINER

FLEISCHER, MARK A

ART UNIT

PAPER NUMBER

3624

NOTIFICATION DATE

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/750,436	<b>Applicant(s)</b> DEB ET AL.	
	<b>Examiner</b> MARK A. FLEISCHER	<b>Art Unit</b> 3624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 and 19-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 and 19-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### **Status of Claims**

1. This final office action is in reply to the Amendments filed on 25 September 2008.
2. Claims 14 and 24 have been amended.
3. Claim 34 has been added.
4. Claim 18 has been canceled.
5. Claims 1–17 and 19–34 are currently pending and have been examined.

### ***Response to Amendments***

6. The objection to claim 24 is withdrawn in light of Applicant's amendments.
7. The rejection of claim 14 under 35 USC §112, 2<sup>nd</sup> paragraph is maintained for the reasons set forth below.
8. The rejection of claim 18 under 35 USC §112, 2<sup>nd</sup> paragraph are withdrawn in light of Applicant's amendments and the cancellation of that claim.

### ***Examiner's Note***

9. Examiner notes that claim 1 in the amended claims appears to incorrectly denote that it has been amended although no new text is underlined. A comparison with the original claims set however indicates that no amended text is present. As such, Examiner interprets claim 1 in the amended claims set as being 'original' and not being amended.

### ***Response to Arguments***

10. Applicant's arguments received on 25 September 2008 have been fully considered but they are not persuasive. Referring to the previous Office action, Examiner has cited relevant portions of the references as a means to illustrate the systems as taught by the prior art. As a means of

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providing further clarification as to what is taught by the references used in the first Office action, Examiner has expanded the teachings for comprehensibility while maintaining the same grounds of rejection of the claims, except as noted above in the section labeled "Status of Claims." This information is intended to assist in illuminating the teachings of the references while providing evidence that establishes further support for the rejections of the claims.

11. With regard to the limitations of claims 1–17 and 19–34, Applicant essentially argues that the prior art of record, specifically Hanagan and Pather, and in distinction to the instant application, do not teach "that the customer billing system processes accounts with a set of dependent tasks. Pather fails to make up for the deficiencies of Hanagan with respect to accounts with dependent tasks. Pather is directed to a method of processing subscription queries into data by linking subscription queries to event data to generate a database of notification data. Notably, Pather does not disclose processing subscription queries if there are ***any interdependency between subscription queries***." (Remarks, p.9) Examiner however notes that Hanagan does specifically contemplate the processing of "task dependencies" (see Hanagan [0329] "Task dependencies, service request dependencies, and resource availability are all taken into account during the scheduling process." (emphasis added)). That Pather may or may not teach queries or processing "if there are any interdependenc[ies]" is of no moment given that Hanagan does. Moreover, Hanagan teaches the processing of task dependencies in a number of contexts (see e.g., [0082], [0145], [0239], [0249], [0311], [0329], [0335], [0428] where batch processing is also described, [0432] and [0448]. As noted more fully below in the claim rejections, the other elements of the claims are also taught by Hanagan and Pather as shown.

12. Applicant's remarks (Remarks, p.8-9) also suggest that the Applicant is attempting to distinguish the instant application from the prior art by reading limitations into the claims from the specification. Applicant's references to the facts of the type of task processing performed in the prior art, i.e., customer billing system (Hanagan) and subscription queries (Pather), do not diminish the fact that the prior art reads on the claims as written. USPTO personnel are to give claims their broadest reasonable interpretation in light of the supporting disclosure. *In re Morris*,

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127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim should not be read into the claim. *E-Pass Techs., Inc. v. 3Com Corp.*, 343 F.3d 1364, 1369, 67 USPQ2d 1947, 1950 (Fed. Cir. 2003) (claims must be interpreted "in view of the specification" without importing limitations from the specification into the claims unnecessarily). *In re Prater*, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969). See also *In re Zletz*, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989) ("During patent examination the pending claims must be interpreted as broadly as their terms reasonably allow.... The reason is simply that during patent prosecution when claims can be amended, ambiguities should be recognized, scope and breadth of language explored, and clarification imposed.... An essential purpose of patent examination is to fashion claims that are precise, clear, correct, and unambiguous. Only in this way can uncertainties of claim scope be removed, as much as possible, during the administrative process.").

13. In summary, the Examiner has taken the broadest and most reasonable interpretation of the claim limitations *as written*, in light of the specification. Although the specification may contain recitations of intended use, alternative points of view and subjective interpretative differences between the prior art of record and the present invention as premeditated, it is the claims themselves that are given patentable weight only inasmuch as they are constructed. Because the claimed invention has been painted with the broad stroke of petitioning for limitations that encompasses more than is asserted in the Applicant's claims, the prior art of record continues to fully disclose the Applicant's inventions *as claimed*.

14. With regard to new claim 34, see the claim rejections below.

***Claim Objections***

15. Claim 34 is objected to because of the following minor informalities: the claims recites “an error component that that processes...” where one of the double ‘that’s should be removed.

***Claim Rejections - 35 USC § 112***

16. The following is a quotation of the second paragraph of 35 U.S.C. §112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

17. Claims 14 and 34 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- **Claim 14:** Applicant uses the phrases *self-throttles* and *predetermined threshold* in a manner that is incomplete and hence vague and indefinite. Moreover, this merely describes and characterizes an effect of unstated method steps. No method steps describe how the system is made to speed-up or slow down *the system* if this is, in fact, what is meant by the term. Nor does the specification provide any further insight into how the self-throttling is effected (see e.g., Applicant’s specification, p. 13). Although Applicant has addressed the issues associated with ‘threshold’ values that were raised in the first non-final office action, Applicant has not addressed the methods associated with self-throttling as previously described. For purpose of examination, Examiner interprets the term *self-throttles*, to mean that some degree of data alignment is maintained during processing.
- **Claim 34:** Applicant recites “wherein the bulk component processes the errored account with a predetermined threshold number of attempts to resolve the errored account until the account state is in par with the rest of accounts being processed by bulk mode.” where it unclear and inconsistent that processing occurs “a predetermined threshold number of attempts to resolve...” and at the same time processing “until the account state is in par with the rest of accounts...” The inconsistency renders this claim vague and indefinite. In

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addition, stating that processing continues until the account state “is in par” uses a relative if not vague term, hence is vague and indefinite based on the use of that phrase.

### ***Claim Rejections - 35 USC § 103***

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

19. Claims 1–17 and 19–33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hanagan, *et al.* (US PgPub 20040133487 A1) in view of Pather, *et al.* (US 7177859 B2).

#### **Claims 1, 6, 7, 15, 22, 28 and 31:**

Hanagan describes and/or discloses *a system* (see title) and *method* (see e.g., [0004] “billing”, “aggregates”, and in [0082] “determine the tasks...”) and *computer-readable media with computer-executable instructions* (claim 3 and [0452] “server programs”) *that facilitates task processing* ([0082]) and *periodic processing* ([0306] “on a periodic basis”) *of subscription accounts* ([0102] “customer subscription information”) in the following limitations, as shown:

- *a bulk component* ([0357] “batch environment”) *that concurrently processes* ([0357] “automatically processed in parallel”) *a plurality of eligible accounts* ([0411] “row is valid” and in [0078] “providing advanced features to additionally support scripting and validations.” (emphasis added)) *with a set of dependent tasks* ([0329] “Task dependencies”); *and*
- *a removal component* (Abstract: “The components are modular.” and in [0252] “Filters can be set up to filter out records. [...] Filters are defined using the ERP graphical user interface.” (emphasis added) where ‘filter out’ corresponds to *removal* and ‘ERP...’ corresponds to *component*”) *that removes an account from the eligible accounts as an errored account if an error is associated*

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*therewith* ([0250] “Single erroneous UE records are errored out and written to an Invalid Event Records File. If some records are rejected due to invalid field contents, the reason is written to an Error File.” (emphasis added) where ‘records’ corresponds to *eligible accounts* and ‘errored out’ corresponds to an *errored account*).

- *an error component* ([0149-56] “...in the case an error is detected.” See also [0250] “The Validator”) *that that processes the errored account* ([0250] “Single erroneous UE records are errored out and written to an Invalid Event Records File.”) *to resolve the error associated therewith* (see [0250] and [0443] “Error Handling”), *and merges the resolved errored account with bulk processing* ([0250] “A GUI is also provided for error correction. [...] The validated UE records are written to files (different files (same format) for assembly and non-assembly records).” (emphasis added) where ‘validated’ corresponds to *resolved errored account* and ‘assembly’ corresponds to *merges...* see also [0477] “The framework merges master and incremental update files...” ) *of the eligible accounts by the bulk component when the resolved errored account is temporally aligned with the bulk processing* ([0476] “Over time the master file will get out of synchronization with the database because of database inserts, updates or deletions that are applied to the database table. For large tables supporting time critical functionality, these additional changes are captured periodically and made available to running processes in an incremental update file.” (emphasis added) where ‘out of synchronization’ in conjunction with ‘changes...’ and ‘incremental update...’ corresponds to *temporally aligned* and ‘running processes’ corresponds to *the bulk component* and *bulk processing*); *and*
- *facilitates real-time processing of an account* ([0084] “The invention is a Customer Care and Billing (CCB) solution, providing convergent and modular functionality, real-time information, drastically shortened time to market, and a flexible architecture.”).

Hanagan does not specifically teach the notion of *a catch-up component, per se*, but Pather in an analogous art pertaining to programming models for subscription services, does. In at least col. 28, lines 59-62 ([28,59-62]) “Additionally, developers may specify the number of quan-tums that the



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logical generator clock can fall behind the real time clock before processing of subscription rules (both event and scheduled) is skipped in order to catch up.”)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the modular system models, components and methods of Hanagan that batch process subscription and billing accounts with the methods of Pather that provide a mechanism for ‘catching up’ because account processing data handled in batches is highly scalable and thus merging corrected data, as by the *error component*, is important so that all accounts can be handled, but the error correction processing may cause many accounts to “fall behind” (Pather [28,51]) the appropriate processing time frame, hence, the capability to *catch up* avoids this problem by maintaining the timeliness of the data processing.

**Claims 2 and 16:**

Hanagan teaches the following limitation:

- *the tasks are processed sequentially* (see [0157] and [0259] “The sequence of calculations...”)  
*against the plurality of eligible accounts* ([0180] “Maintain Customer Accounts”) *according to task dependencies* ([0329]).

**Claims 3 and 17:**

Hanagan teaches the following limitation:

- *the bulk component repeatedly processes the errored account a predetermined number of attempts before the errored account is removed by the removal component for error processing* ([0247] “A raw event record file is rejected if it contains too many erroneous records (where “too many” is specified in a user-defined parameter)...” and in [0283] “the cycle can be approved for distribution or rejected to be reprocessed.” (emphasis added) and finally, in [0250] see “error correction” and [0476] for “deletions” and *removal component*)).

**Claims 4 and 23:**

Hanagan teaches the following limitation:

- *merging the errored account* ([0250] “Single erroneous UE records are errored out and written to an Invalid Event Records File.”) *that has been resolved with the one or more eligible accounts for*

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*further processing in bulk* ([0250] “A GUI is also provided for error correction. [...] The validated UE records are written to files (different files (same format) for assembly and non-assembly records).” (emphasis added) where ‘validated’ corresponds to *errored account that has been resolved* and ‘assembly’ corresponds to *merging...* see also [0477] “The framework merges master and incremental update files...”).

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**Claim 5:**

Hanagan teaches the following limitation:

- *the errored account is merged back in only when the errored account has been resolved* (see the rejections of claims 4 and 23 above. Note the phrase therein *that has been resolved...* is logically equivalent to the condition/limitation *only when the...*) *temporally with processing of the bulk component* ([0476] “Over time the master file will get out of synchronization with the database because of database inserts, updates or deletions that are applied to the database table. For large tables supporting time critical functionality, these additional changes are captured periodically and made available to running processes in an incremental update file.” (emphasis added) where ‘out of synchronization’ in conjunction with ‘changes...’ and ‘incremental update...’ corresponds to *resolved temporally* and ‘running processes’ corresponds to *the bulk component*).

**Claim 8:**

Hanagan teaches the following limitation:

- *the dependent tasks processed on a first day must be processed error-free before the same tasks can be processed on a succeeding day* ([0082]: “The result is a workflow, identifying the proper order in which tasks must be completed, the estimated time required to perform a task, and the type of resource(s) required for each task. OP 22 actively monitors each task, generating alarms for potential error conditions, such as tasks failing to start or finish at their scheduled time. OP 22 completely automates order scheduling and processing. This eliminates time-consuming errors due to missed steps and improper work implementations, freeing valuable resources to perform other value.” (emphasis added)).

**Claim 9:**

Hanagan does not specifically teach the following limitation, but Pather, in an analogous art pertaining to programming models for subscription services, does as shown.

- *comprising a catch-up component for real-time processing of an account* (In at least col. 28, lines 59-62 ([28,59-62]) “Additionally, developers may specify the number of quan-tums that the logical

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generator clock can fall behind the real time clock before processing of subscription rules (both event and scheduled) is skipped in order to catch up.”)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the modular system models, components and methods of Hanagan that batch process subscription and billing accounts with the methods of Pather that provide a mechanism for ‘catching up’ because account processing data handled in batches is highly scalable and thus merging corrected data, as by the *error component*, is important so that all accounts can be handled, but the error correction processing may cause many accounts to “fall behind” (Pather [28,51]) the appropriate processing time frame, hence, the capability to *catch up* avoids this problem by maintaining the timeliness of the data processing.

**Claims 10 and 19:**

Hanagan teaches the following limitation:

- *the bulk component* ([0357] “batch environment”) *is associated with periodic processing* ([0306] “on a periodic basis”) *of the plurality of eligible* ([0411] “row is valid” and in [0078] “providing advanced features to additionally support scripting and validations.” (emphasis added)) *(subscriber) accounts* ([0102] “customer subscription information”).

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**Claim 11:**

Hanagan teaches the following limitation:

- *the plurality of eligible accounts are processed in parallel by one or more computing devices* ([0268] “ERP [ ] is designed for parallel processing and the workload is balanced between the different processes by workload servers.”).

**Claim 12:**

Hanagan teaches the following limitation:

- *the plurality of eligible accounts are processed in parallel by different threads of execution on a single computing device* ([0396] “On-line application servers are multi-threaded.”).

**Claim 13:**

Hanagan teaches the following limitation:

- *the plurality of eligible accounts are processed in accordance with an access control list* ([0456] regarding data security and “login screens”. Also, in [0432] “restrict unauthorized access”).

Hanagan does not specifically refer to an *access control list per se*, but Examiner takes Official Notice that it is old and well-known as well as common place in the information processing arts to restrict access to computer services and information using various standard mechanisms, among these is the use of access control lists of authorized users. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate an access control list and process accounts *in accordance* therewith because preserving data security and integrity is a necessary condition for ensuring the utility and the functionality of any large-scale information processing system and the utility of such restrictions were predictable at the time of the invention.

**Claim 14:**

Hanagan does not specifically teach the following limitation, but Pather, as shown, does:

- *wherein the system is self-throttled to keep system resources* ([23, 23]: “Such a factor can be considered a trade-off between improving application speed and monopolizing system resources.” and corresponds to the effect of self-throttling. In addition, Pather repeatedly refers to “a predetermined threshold” (see *e.g.*, [77,23]) *under a predetermined threshold* ([24,1]: “A

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value specified for distributor settings should also be considered in terms of a trade-off between improving application speed and monopolizing system resources.” (emphasis added) where ‘a value specified’ corresponds to *a predetermined threshold.*) *if the number of dependencies associated with an account are below a second threshold.*

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the aforementioned threshold and to self-throttle because it provides a mechanism whereby system administrators can effect a tradeoff between speed and system resources as noted above and that the benefits of this capability were known at the time of the invention and were predictable.

**Claim 20:**

Hanagan teaches the following limitation:

- *the bulk component fetches only the required number of accounts for processing based on the set of tasks to be processed* ([0415]: “The parts of the invention that operate without direct user interaction are called “batch” and “stream I/O”. Batch units of workload are initiated periodically, usually according to a pre-defined time schedule or by predictable arrival of an occasional event or file of events from an external system.” (emphasis added) and in [0416]: “Each batch process inherits from the HvApplication infrastructure class, which provides a context for handling event-based processing. [...] This is accomplished by coding a method Process Message that provides application-specific handling of asynchronous input queue messages.” (emphasis added) where the emphasized text indicates an association between various batch (*bulk*) processes and a particular *set of tasks*.)

**Claim 21:**

Hanagan teaches the following limitation:

- *the bulk component and the error component process accounts concurrently* ([0443]: “Error Handling: Error handling allows applications to deal consistently with error or fault situations. Error handling for batch applications is different in some respects than for on-line applications

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since high-volume errors must not stop processing as long as work can continue. On-line errors generally must be dealt with immediately." (emphasis added)).

**Claim 24:**

Hanagan teaches the following limitation:

- *the processing in bulk further comprises,*
  - *processing task dependency data related to the set of tasks ([0329]: "Task dependencies, service request dependencies, and resource availability are all taken into account during the scheduling process.");*
  - *maintaining system state data of the system (see [0316] regarding "State Transition Knowledge Base");*
  - *generating an account level exception list of exceptions generated during the processing in bulk (In at least [0162] reference is made to "processing" and "exception logic". Further, in [0247] "...the Error Report File..." which is equivalent to an account level exception list. Also, in [0443] "Error handling for batch applications..." where this also pertains to account[s] as shown in [0081] "The Customer Bill Manager...the mass batch of documents.");*
  - *monitoring and reporting system processes related to at least bulk processing ([0330]: "The invention monitors tasks for these conditions and creates alarms that are directed to workers to inform them of the problems." (emphasis added)),*
  - *removing an errored account ([0252] "Filters can be set up to filter out records. [...] and in [0250] "Single erroneous UE records are errored out [...]"); and*
  - *providing error handling related to an error generated by the errored account ([0443]).*

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**Claim 25:**

Hanagan teaches the following limitation:

- *reprocessing the errored account in bulk before removing the account for error processing* (see the rejections of claims 3 and 17).

**Claim 26:**

Hanagan does not specifically teach the limitation *reprocessing the errored account before requiring manual intervention to initiate further reprocessing*, but Examiner takes Official Notice that it is old and well-known as well as common place in the workflow processing arts to initiate repeated attempts to process a specific task before requiring *manual intervention* as this increases the likelihood of enabling “customer service representatives [to] spend more time focusing on the customer and less time on manual and redundant tasks.” Hanagan [0078]. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the steps of reprocessing attempt to mitigate the necessity of manual intervention because this can tend to increase system productivity (see e.g., [0328]).

**Claim 27:**

Hanagan teaches the following limitation:

- *predicting when subscription cycle end processing needs to be performed next* (See the rejection of claim 18 above and [0307]. Also, in [0082]: “OP 22 completely automates order scheduling and processing.” and in [0415]: “Batch units of workload are initiated periodically, usually according to a pre-defined time schedule or by predictable arrival of an occasional event or file of events from an external system.” (emphasis added) where ‘workload...’ corresponds to *subscription cycle end process* as in the rejection of claim 18, ‘pre-defined...’ and ‘predictable...’ and ‘...event’ corresponds to the limitation since scheduling an event or task is equivalent to *predicting when...*).



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**Claim 29:**

Hanagan teaches the following limitation:

- determining according to a predetermined threshold level when a second account that is dependent on a first account is considered inconsistent* (Regarding the first and second account (*dependent on...*) in in [0133] “These types of customers are generally large with multiple invoices, accounts, and locations.” (emphasis added) hence related or dependent accounts. In [0250-3]: “The Validator [ ] validates the [ ] records for correctness and [...] performs different types of edits on the fields of the internal record format (for example, numeric checks, date validations, and value checks). Moreover, the Validator determines which records need to be assembled for long duration. An event record file is rejected if it contains too many erroneous records (as specified in a parameter). [...] Several error groups can be defined. [...] The importance of the error group determines how to handle the record (for example, ignore the incorrectness, recycle the record, or write it to the Invalid Event Records File). The error severity can be configured. [...] Corrections can be applied either to individual records, or to multiple records grouped by error codes and error groups. [...] A warning is issued when configurable specified thresholds are passed.”)

**Claim 32:**

Hanagan teaches the following limitation:

- a first system that processes a set of tasks against a plurality of accounts; a second system that processes the same set of tasks against the plurality of accounts; wherein the first system signals the second system to bypass processing of one of the plurality of accounts if the first system determines an error in the one account* ([0163]: “Even when alternative processing is used, the event continues along the common path once the exception logic is completed.” In [0444]: “This service allows processes to be controlled by a central control and management process (C&M). In this case, C&M can start, stop (gracefully or immediately) and monitor processes to verify their current state (running or in error).” (emphasis added) where ‘processes’ refers to at least two system elements or systems. In

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[0250]: “The Validator 176 validates the UE (Unrated Event) records for correctness and sends the UE records to the Duplicate Event Check process. [...] An event record file is rejected if it contains too many erroneous records (as specified in a parameter). Single erroneous UE records are errored out and written to an Invalid Event Records File. [...] The importance of the error group determines how to handle the record (for example, ignore the incorrectness, recycle the record, or write it to the Invalid Event Records File)” (emphasis added) where ‘write it to the...’ corresponds to *bypass processing*. Also, in [0475]: “Multiple processes can share memory-mapped files. If two processes on the same machine map to the same file, the file will be loaded into memory only once.” (emphasis added) where ‘file’ corresponds to *accounts* and ‘multiple processes’ corresponds to *processes a set of tasks...*).

**Claim 33:**

Hanagan teaches the following limitation:

- *the second system signals the first system to bypass processing of another of the plurality of accounts if the second system determines an error in the another account* (In [0445]: “Using special workload balancing processes, message queuing provides a straightforward mechanism for load balancing across multiple batch application processes serving the same function.” (emphasis added) and see the rejection of claim 32 above.).

20. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hanagan, *et al.* (US PgPub 20040133487 A1) in view of Pather, *et al.* (US 7177859 B2) and further in view of Seshadri, *et al.* (US PgPub 20040002988 A1).

**Claim 34:**

Hanagan teaches the following limitation:

- *a bulk component* ([0357] “batch environment”) *that concurrently processes* ([0357] “automatically processed in parallel”) *a plurality of eligible accounts* ([0411] “row is valid” and in [0078] “providing advanced features to additionally support scripting and validations.” (emphasis added)) *with a set of dependent tasks* ([0329] “Task dependencies”);

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- a *removal component* (Abstract: “The components are modular.” and in [0252] “Filters can be set up to filter out records. [...] Filters are defined using the ERP graphical user interface.” (emphasis added) where ‘filter out’ corresponds to *removal* and ‘ERP...’ corresponds to *component*”) *that removes an account from the eligible accounts as an errored account if an error is associated therewith* ([0250] “Single erroneous UE records are errored out and written to an Invalid Event Records File. If some records are rejected due to invalid field contents, the reason is written to an Error File.” (emphasis added) where ‘records’ corresponds to *eligible accounts* and ‘errored out’ corresponds to an *errored account*.);
- an *error component* ([0149-56] “...in the case an error is detected.” See also [0250] “The Validator”) *that that processes the errored account* ([0250] “Single erroneous UE records are errored out and written to an Invalid Event Records File.”) *to resolve the error associated therewith* (see [0250] and [0443] “Error Handling”), *and merges the resolved errored account with bulk processing* ([0250] “A GUI is also provided for error correction. [...] The validated UE records are written to files (different files (same format) for assembly and non-assembly records).” (emphasis added) where ‘validated’ corresponds to *resolved errored account* and ‘assembly’ corresponds to *merges...* see also [0477] “The framework merges master and incremental update files...”) *of the eligible accounts by the bulk component when the resolved errored account is temporally aligned with the bulk processing* ([0476] “Over time the master file will get out of synchronization with the database because of database inserts, updates or deletions that are applied to the database table. For large tables supporting time critical functionality, these additional changes are captured periodically and made available to running processes in an incremental update file.” (emphasis added) where ‘out of synchronization’ in conjunction with ‘changes...’ and ‘incremental update...’ corresponds to *temporally aligned* and ‘running processes’ corresponds to *the bulk component and bulk processing*); and

Hanagan does not specifically teach the notion of a *catch-up component*, *per se*, but Pather in an analogous art pertaining to programming models for subscription services, does. In at least col. 28,

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lines 59-62 ([28,59-62]) “Additionally, developers may specify the number of quan-tums that the logical generator clock can fall behind the real time clock before processing of subscription rules (both event and scheduled) is skipped in order to catch up.”). Neither Hanagan nor Pather specifically teach that *the bulk component processes the errored account with a predetermined threshold number of attempts to resolve the errored account until the account state is in par with the rest of accounts being processed by bulk mode*, but Seshadri, in an analogous art does. Seshadri [0099] states: “With respect to the distributor, it should be noted that retry functionality can be provided wherein the platform allows application developers to specify a pattern of retry attempts for failed notifications and retries are implemented accordingly without requiring an application developer to specify an inordinate amount of extra logic.” (emphasis added) and in [0338] and [0344] describes a “retry schedule” and in [0345] describes an “element [that] can be used to define the number of failures that may occur before a system event log entry is created to document the failure.” (emphasis added) where the emphasized text corresponds to *a predetermined threshold number of attempts to resolve the errored account*. Note that Seshadri also teaches batch processing in at least [0126] and in many other paragraphs. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Hanagan and Pather with Seshadri because the bulk (batch) processing capabilities taught in Seshadri increases the efficiency (Seshadri [0007]) of the account processing system and the technical capability to combine these teaching existed at the time of the invention and the result was predictable.

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### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry of a general nature or relating to the status of this application or concerning this communication or earlier communications from the Examiner should be directed to **Mark A. Fleischer** whose telephone number is **571.270.3925**. The Examiner can normally be reached on Monday-Friday, 9:30am-5:00pm. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, **Bradley Bayat** whose telephone number is **571.272.6704** may be contacted.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://portal.uspto.gov/external/portal/pair> <<http://pair-direct.uspto.gov>>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866.217.9197** (toll-free). Any response to this action should be mailed to:

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or faxed to **571-273-8300**.

Hand delivered responses should be brought to the **United States Patent and Trademark Office**

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Examiner, Art Unit 3624

24 December 2008

/Bradley B Bayat/

Supervisory Patent Examiner, Art Unit 3624